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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,020	07/09/2003	Daniel J. Mattson	285/536	1120
757	7590	11/23/2005	EXAMINER	
BRINKS HOFER GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60610			GIBSON, RANDY W	
			ART UNIT	PAPER NUMBER
			2841	

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/616,020

Applicant(s)

MATTSON ET AL.

Examiner

Randy W. Gibson

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-68 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. Note that the reference to Reimer (US # 5,917,180) shows an optical sensor as claimed made from two discrete optical fibers as early as 1999.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 6,11-16, 24, 25, 28, 30, 35, 37, 39-42, and 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Inkster (US # 6,788,295). See column 6, line 3 to col. 7, line 28.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 4, 5, 7, 18-20, 22, 26, 31, 34, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inkster (US # 6,788,295) in view of Fernald et al (US #6,452,667), Thiele et al (US # 4,733,068), and Bennett et al (US patent application pub. # 2001/0054682 A1). Inkster does not disclose a stress relief. However, Fernald teach that it is known to place some slack in a fiber optic cable to allow for the cable to expand and contract without breaking the cable (Col. 4, lines 57-59). Therefore it would have been obvious to the ordinary practioner to provide the cables of Inkster with slack in them to allow the cables to expand.

As for claim 7, Bennett et al shows that is known to make trenches in a substrate to hold an optical cable; see Fig. 1 (The examiner notes that the applicant made the argument that the cables themselves make the trenches as an inherent result of assembling the pad, not the manufacturer, but this fact is irrelevant even if true since Bennett teach that it is known that such trenches do exist.). Since Thiele et al teaches cutting out vias to allow more light to pass between fibers, it would have been obvious to the ordinary practioner to cut out part of the foam pad of Inkster to form preformed trenches to hold the fibers so that the layers of the foam pad fit together better.

6. Claims 8-10, 21, 27, 32, 33, 36, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inkster in view of Fernald et al, Thiele et al, & Bennett et al as applied to claims 4, 5, 7, 18-20, 22, 26, 31, 34, & 43 above, and further in view of Breton (US # 4,369,525), Simons (US Statutory Invention Registration # H322) and Verdiell et al (US # 5,870,417). Inkster does not disclose the "control sensor"

for adjusting the light output of the array of optical weight sensors. However, it is known that the light output of a laser diode varies with temperature and age, and it is also known to build a laser diode with a built-in light sensor to enable regulation of the power to the laser diode, as shown by the examples of Breton et al (Col. 1, lines 34-51; Col. 6, lines 5-21) or Simons (Col. 3, lines 34-67; Col. 5, line 14 to col. 6, line 29). It would have been obvious to use this conventional type of feedback circuit in the device of Inkster for the same reason.

As for the limitation of laser trimming the ends of the fiber optic cable, Verdiell et al teach that this is a known technique for trimming optical fiber (Col. 11, lines 53-62), and it would have been obvious to the ordinary practitioner to use a known technique to form the device of Thiele based on its art recognized suitability for its intended purpose. See MPEP § 2144.07.

7. Claims 17, 23, 29, 38, and 46-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuboki et al (US # 6,345,839) in view of Inkster (US # 6,788,295). Kuboki et al discloses an two dimensional array of pressure sensors arranged in a seat, and a air bag controller system that uses image processing techniques to determine the shape of a seat occupant, and based on the shape and weight of the occupant, decide whether the occupant is a human or an object. Kuboki et al discloses the claimed invention except his array of sensors is based on a device that varies resistance with pressure, instead of using an optical pressure sensor array. Inkster shows that an optical pressure sensing array is the functional equivalent to an array of variable

resistance pressure sensors. It would have been obvious to substitute the optical pressure sensor array mat of Inkster for the variable resistance pressure sensor array mat of Kuboki et al based on its known suitability for its intended use. See MPEP §§ 2144.06 & 2144.07.

Conclusion

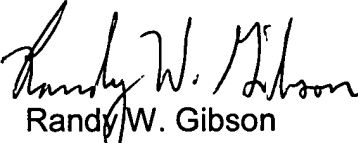
8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randy W. Gibson whose telephone number is (571) 272-2103. The examiner can normally be reached on Mon-Fri., 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (571) 272-1957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Randy W. Gibson
Primary Examiner
Art Unit 2841